

# Work Order ID 87131

**\*87131\***

Page 1

July-11-12 8:53:29 AM

Item ID: D2563 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Step Weldment Assembly  
 Start Date: 7/10/12 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 8/10/12 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: *[Signature]* Date: *7-07-12* Tooling: Date: Run Start **\*NR1\***  
 QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2563	Rev C								
100	Large Fab	0.00							
<b>*100*</b>									
Large Fab	Memo	0.00							
Large Fab	1-Cut D2244 to 89.70" at 34 deg as per dwg D2563								
	2-Deburr ends								
	3-Weld (1 END CAP, LUG PLATES & MOUNTING ANGLE) as per dwg D2563 using DT 8343								
	4- Grind								
110	QC9- Inspect visual per QSI004- Fusion Welds	0.00							
<b>*110*</b>									
QC	Memo	0.00							
Quality Control									

*[Signature]* 12.08.08 ①

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 87131

**\*87131\***

Page 2

July-11-12 8:53:29 AM

Item ID: D2563 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Step Weldment Assembly  
 Start Date: 7/10/12 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 8/10/12 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 <b>*120*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00 SMB 0.00 12-8-08	(DAS 16 8-89 12/6/08			1			
130 <b>*130*</b> HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1  Memo	0.00 0.00				1	76	12-8-9	
140 <b>*140*</b> QC Quality Control	QC3- Inspect Part Finish  Memo	0.00 0.00				1	⊕	12-08-10	

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

**Part No:** \_\_\_\_\_ **PAR #:** \_\_\_\_\_ **Fault Category:** \_\_\_\_\_ **NCR:** Yes No **DQA:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
**Resolution:** \_\_\_\_\_ **Disposition:** \_\_\_\_\_ **QA: N/C Closed:** \_\_\_\_\_ **Date:** \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 87131

**\*87131\***

Page 3

July-11-12 8:53:29 AM

Item ID: D2563 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Step Weldment Assembly  
 Start Date: 7/10/12 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 8/10/12 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start **\*NR1\***  
 QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 <b>*150*</b> Large Fab Large Fab	Weld per dwg A/R Aluminum rod Batch: <u>120854</u> Large Fab Memo 1-Inspect for foreign object per QSI 024 2-Weld Remaining End cap as per Dwg D2563 using DT 8343 3-Grind	0.00 0.00				1	1		12.08.10 12.08.10
160 <b>*160*</b> QC Quality Control	QC10- Inspect visual per QSI004- ground welds Memo	0.00 0.00	DAS 16 8-8	12/06/13					
170 <b>*170*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00	5mb 12.8.10	DAS 16 8-8	12/06/13	1			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 87131

**\*87131\***

Page 4

July-11-12 8:53:29 AM

Item ID: D2563      Accept      **\*N900040100\***      Setup Start **\*NS1\***  
 Revision ID:      Stop **\*NS2\***  
 Item Name: Step Weldment Assembly  
 Start Date: 7/10/12      Start Qty: 1.00      **\*1\***      Cust Item ID:  
 Required Date: 8/10/12      Req'd Qty: 1.00      **\*1\***      Customer:  
 Reference:

Approvals:      Process Plan:      Date:      Tooling:      Date:      Run Start **\*NR1\***  
 QC:      Date:      SPC (Y/N):      Date:      Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
175 <b>*175*</b> HandFinish Hand Finishing	Pressure Wash per QSI005 4.3  Memo Touch up Alodine as per QSI005	0.00  0.00				1X			M-L 12/08/13
180 <b>*180*</b> Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum  Memo Touch up Alodine then Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3  START TIME: 9:20 OVEN TEMPERATURE: 320 F FINISH TIME: 9:50	0.00  0.00				1X			M-L 12/08/13
190 <b>*190*</b> HandFinish Hand Finishing	Wing Walk as per dwg QSI005 4.4 Batch M1122500  Memo	0.00				1X			M-L 12/08/13

M121841

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Work Order ID 87131

**\*87131\***

Page 5

July-11-12 8:53:29 AM

Item ID: D2563 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Step Weldment Assembly  
 Start Date: 7/10/12 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 8/10/12 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200	QC3- Inspect Part Finish	0.00							
<b>*200*</b>									
QC	Memo	0.00							
Quality Control									
210	Identify as per dwg & Stock Location: _____	0.00							
<b>*210*</b>									
Packaging	Memo	0.00							
Packaging									
220	QC21- Final Inspection - Work Order Release	0.00							
<b>*220*</b>									
QC	Memo	0.00							
Quality Control									

1 2 3 12/08/14

B89430

12/8/30

MLJ 12/08/23

MLJ  
12-08-23

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

July-11-12 8:53:29 AM

Page 1

Work Order ID: 87131

Parent Item: D2563

Parent Item Name: Step Weldment Assembly

Start Date: 7/10/12

Required Date: 8/10/12

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:G 02.07.31 Re-format Location RF

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2244-116 Step Extrusion		Manufactured	No			100	Each	70.5000	1	1		12.08.08	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				WA		70.5							
				80803		70.5			1				
D2561 Lug		Manufactured	No			100	Each	32.0000	2	2		12.08.08	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				WA		27							
				80813		1							
				84326		26			2				
				WA015		5							
				66813		5							
D2564 Mounting Angle		Manufactured	No			100	Each	48.0000	2	2		12.08.08	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				WA		48							
				83429		24			2				
				83712		4							
				85831		20							
D2673-34 End Plate		Manufactured	No			100	Each	79.0000	1	1		12.08.08	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				WA		79							
				84535		79			1				
D2673-34 End Plate		Manufactured	No			150	Each	79.0000	1	1		12.08.09	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				WA		79							
				84535		79			1				

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

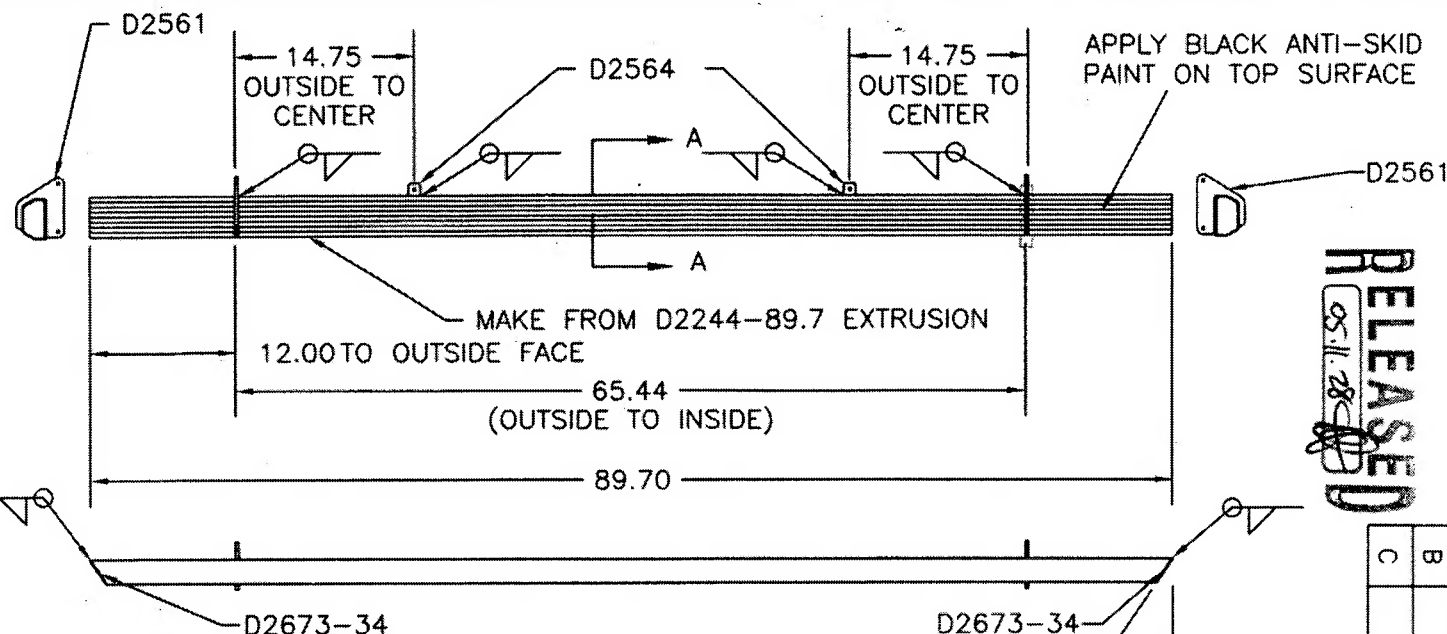
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



RELEASED  
05.11.14

DESIGN	DRAWN BY	DART AEROSPACE LTD
BW	44	HAMKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO.
44	44	D2563
DATE	SCALE	TITLE
05.11.14	1:15	STEP WELDMENT ASSEMBLY
REV	DATE	DESCRIPTION
A	96.04.26	NEW ISSUE
B	97.05.14	END CAPS CHANGED (WAS D2248)
C	05.11.14	UPDATE NOTES



#### D2563 STEP WELDMENT ASSEMBLY PARTS LIST

Part No.	Description	QTY
D2563	STEP WELDMENT ASSEMBLY	X
D2244-89.7	EXTRUSION*	1
D2561	LUG PLATE	2
D2564	MOUNTING ANGLE	2

\*cut per drawing

#### D2563 STEP WELDMENT ASSEMBLY NOTES

- 1) MAKE FROM EXTRUSION D2244
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3  
MASK OFF 0.50 ON EACH SIDE OF D2561 LUGS BEFORE  
APPLYING BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	App QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries